Tackling the Health I.T. Workforce Shortage

There is a shortage of I.T. workers in health care, but much of it results from not having the right skill sets today in provider, payer and vendor organizations.

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Citing the need for 50,000 new health care information technology jobs during the next five years-just to achieve meaningful use of electronic health records-the federal government in 2010 awarded $84 million in stimulus-funded grants to create intensive health I.T. curricula lasting six months or less in community colleges and 12 months or less at four-year universities.

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The I.T. training programs were spurred by the HITECH Act's intent to accelerate adoption and meaningful use of electronic health records and related technologies by spending billions of dollars on the EHR incentive program.

As providers adopt EHRs and other information systems, they-and vendors-have found it difficult to find I.T. professionals proficient in next-generation computer systems and networks. "If you're looking for people with skills in 20- to 25-year-old technology you'll find them quickly," says Ray Desrochers, COO at payer software vendor HealthEdge Software Inc., Burlington, Mass. "But skills in modern I.T. technology are lacking."

Charles Friedman, chief scientific officer at the Office of the National Coordinator for Health Information Technology, agrees that there is no shortage of health I.T. applicants. "It always comes down to the level of people who are qualified to do the job." (To learn about how some organizations are turning to third-party talent to bridge the skills gap, see story, page 48).

A September 2010 survey of 182 CIO members of the College of Healthcare Information Management Executives found that more than 70 percent say their organizations lack the information technology staff to implement clinical applications. Fifty-one percent report that I.T. staffing deficiencies possibly will affect their chances to implement an

electronic health records system and qualify for meaningful use incentive payments; 10 percent say the shortage definitely will have an adverse affect.

Further, 76 percent of respondents have concerns about retaining existing I.T. staff. One -half of respondents report their organization will have little or no additional funds to spend on increasing the I.T. staff in 2011.

Many surveyed CIOs expect to implement various programs to retain staff, such as flexible work hours, telecommuting, recognition programs, and education and professional development initiatives.

The federally funded training programs are expected to reduce the shortfall of skilled health I.T. professionals by 85 percent according to David Blumenthal, M.D., director of the federal Office of the National Coordinator for Health Information Technology, in an Oct. 12, 2010, blog. "The highly trained and specialized personnel developed through these programs will play a critical role in supporting physicians nationwide as they transition to EHRs."

But some question whether courses of six to 12 months can adequately train personnel to manage advanced I.T. systems in an industry as complicated as health care. Because of the massive differences between mainframe technology and new applications, "six months isn't going to make you competent," vendor COO Desrochers says. "I could see an intensive two-year program getting it done."

Just meeting the anticipated need of 50,000 more I.T. workers to achieve meaningful use translates to a nearly 50 percent increase in the size of the current workforce of 108,000, according to Computer Sciences Corp., a Falls Church, Va.-based consultancy and I.T. services firm. Other demands on providers, payers and vendors-such as implementation of HIPAA 5010 transaction sets, adoption of ICD-10 code sets, and health care reform provisions of the Accountable Care Act-will exacerbate the problem.

Attrition caused by the pending retirement of Baby Boomers isn't going to make the situation any better. In a report issued in 2010, CSC recommends a number of steps to get some of them to stay around:

* Discuss options with employees nearing retirement age so they understand there are options and management wants to keep them;

* Offer sabbaticals so those nearing retirement can see what it is like to leave for a while then return to full or part-time roles;

* Offer consulting or contracting options that let employees stay in the game but have more independence and control of their retirement lifestyles; and

* Consider other financial incentives.

Various factors

While the health I.T. shortage is nationwide, there are areas where it is more pronounced, particularly in smaller towns and rural regions. There also are areas where a shortage isn't really being felt.

Tight budgets are a bigger problem for many community hospitals than a shortage of I.T. talent, says Russell Branzell, CIO at Poudre Valley Health System in Fort Collins, Colo. "We don't have a recruitment or training issue and most of the people I'm talking to say that's not the issue," he notes. "The issue is how to get the FTEs needed through the budget process."

Most of the other CIOs whom Branzell talks to have been told to keep their budgets relatively flat in 2011. "We're going to have to figure out how to do more with less anyway with health care reform bringing pressure on us."

In the CHIME survey, about half of respondents were requesting budget increases to address workforce shortages. But 26 percent of respondents said they expect no increase in the overall I.T. budget for 2011, and 24 percent expected increases of less than 5 percent.

At 159-bed St. Claire Regional Medical Center in Morehead, Ky., CIO Randy McCleese is seeing non-qualified applicants for systems analyst and help desk positions. In particular, he's seeing "kids applying right out of school and thinking they can do these jobs without experience. We need three to five years of experience." But McCleese can't always get seasoned workers; he recently hired someone with one year of experience.

Most applicants are from northeast Kentucky, and half of St. Claire's I.T. staff comes from nearby Morehead State University. Absent the college, the hospital would be in trouble because it isn't seeing interest from applicants elsewhere, McCleese says. And when the hospital finds a candidate with the right skill sets and experience, it can be tough to seal the deal. A couple times recently the hospital has made an offer and the applicant's current employer countered and won.

Vendors, particularly those selling newer systems, also are have trouble finding talent. "The I.T. shortage in health care is very real right now," contends Desrochers at HealthEdge Software. It's taking the firm 10 to 12 weeks to fill a position. But like some hospitals, HealthEdge is seeing no shortage of applicants-except those with current skill sets. "We're seeing a ton of people with legacy mainframe skill sets," he says. "But it will take time for them to get their skills updated."

Vendors have an easier time finding I.T. talent than providers, Desrochers believes. "We have the cooler stuff that people want to play with and are always pushing the envelope, and that's what people want." Vendors often also have stock options to offer in addition to a competitive salary. Nevertheless, "I'm still taking 10 to 12 weeks to find the right person."

There's an expectation that the workforce shortage will lessen down the road, but don't count on it, says Jim Gibson, founder of Gibson Consultants, a Ridgefield, Conn.-based national search firm.

Another shortage is coming that is structural and based on demographics, he contends, and it will hit every industry. The biggest bulge in the workforce is entering retirement age, and all businesses can expect to start feeling it over the next five years.

"Before the recession, this is what people in human resources and recruiting were focused on," Gibson says. To combat this coming shortage, companies need to change the common mindset that a certain level of turnover is acceptable, because very soon that level will become problematic, he contends. "It won't be easy and requires a fundamental change in an organization from top to bottom." But the impact of a 10-percent decrease in turnover can be startling, he adds, ticking off benefits such as keeping institutional knowledge and not having to recruit and train new employees.

Treading water

St. Claire Regional Medical Center is implementing Meditech 6.0 as its first core EHR. CIO McCleese added four new FTEs for the project and has filled three of the positions. He wasn't even looking for applicants with 6.0 experience, just EHR experience. Its home page (see below) includes a recruiting link.

McCleese doesn't see the shortage for providers getting better soon. With so many hospitals implementing or upgrading EHRs to qualify for meaningful use incentives, "we're going to be fighting for talent over the next two or three years."

But the vendors also are having trouble getting help in the door, McCleese contends. "Meditech is hiring kids out of college without any experience," he says. "We complained and they are backfilling with experience and doing a better job of teaching the others in the past three months or so."

A spokesperson for Meditech says the company has no comment on McCleese's observations. In October 2010 the company announced its intention to hire 800 additional employees to staff a new 18,000 square-foot facility under construction in Freetwon, Mass., about 40 miles from the corporate headquarters in Westwood. "We are growing rapidly and hiring aggressively," says Paul Berthiaume, public relations manager at Meditech, in a release about the hiring plan. "The company's staff increased by 10 percent during the first nine months of 2010 and that rate of growth is expected for the future," he adds.

Several other hospitals in the region are implementing the same system and seeing the same raw kids coming in, McCleese adds. He can't help but think other EHR vendors are in the same situation "because the seasoned talent just isn't there."

McCleese has hopes that the government program to establish health I.T. training programs at community colleges and universities will bear fruit. He's been in touch with his local community college, which will offer classes, and asking them to teach students on the Meditech 6.0 system because of the number of regional hospitals implementing or using it. "We're helping them understand our needs and trying to figure out how to get them a mock EHR to work with."

St. Claire, a teaching affiliate of University of Kentucky Healthcare, will help the community college in any way it can, McCleese says. "Our interest in the educational part is pretty strong because we have been a teaching organization since our inception in 1963."

A regional reprise

The I.T. workforce shortage may be severe in other regions of the nation, but the environment's not too bad in northeast Colorado, says CIO Branzell at Poudre Valley Health System in Fort Collins.

It's not too difficult to "retool" existing staff or find others who can learn quickly and take on new tasks, he contends. Still, he gets 50 to 75 applications a week for a posted position, and finds 12 to 15 prospects who are well qualified and can fill a position within six to eight weeks. One entry level position posted in the fall of 2010 drew 200 applications in a week.

The delivery system is rolling out inpatient CPOE in 2011 and conducting a half-dozen ambulatory go-lives a month, among other initiatives. Branzell is adding about seven employees and supplementing with consultants as necessary.

Some of the best I.T. people Poudre Valley has hired come from other industries, Branzell notes. They are hungry and find health care exciting and a fairly stable industry. "I'm looking for the best cultural fit. If I have to put in a little money to train them, that doesn't bother me a bit."

Where he is seeing the recruitment problem is in consulting shops specializing in systems implementation. The hospital recently upgraded to Meditech's Client/Server 6.0 system, which basically was a new systems implementation that required help from a consulting firm. "We needed 20 consultants at peak time and the longest we waited was two months, but when you need someone right now, two months is way too late."

Branzell is aware of the HITECH Act-funded programs to create health I.T. curricula at community colleges and universities. He hopes the schools focus on informatics-driving efficiency and process improvement-which he believes will bring true value. If the skills being taught focus on implementing applications, then the training programs will be of limited value to vendors over a short period, he says.

The college view

Branzell's wishes notwithstanding, most of the HITECH-funded education initiatives indeed are focusing on implementation issues as providers across the nation increasing adopt EHRs to qualify for meaningful use incentive payments.

CIOs responding to the CHIME survey, by far, said the biggest gaps on their staffs were for clinical software implementation and support. Seventy-one percent of respondents said they had open positions for project managers, analysts, application coordinators, report writers, trainers, informatics staff and technical writers.

As of Sept. 30, 2010, community colleges granted HITECH funds were required to start their six-month training programs. Five community consortia across the nation received a total of $36 million in first-year funding, with up to $34 million more available in the second year following a mid-project evaluation.

In total, the 84 participating community colleges are expected by the end of the two-year project period to have established programs to annually train at least 10,500 health I.T. students. Led by Cuyahoga Community College in Cleveland, the Midwest Community College Health Information Technology Consortium-comprising 17 colleges in 10 states-had 589 students enrolled by early December, says Norma Morganti, executive director.

All colleges in the consortium are required to have an advisory body of industry stakeholders and a regional advisory committee that meets monthly. The consortium had planned to initially focus on practice redesign issues, but based on feedback from advisory committees shifted to EHR implementation issues.

The Office of the National Coordinator has identified six roles for training, although every college does not have to offer courses covering all six roles. Four of the roles are designed for a mobile workforce-either REC-employed or contract workers-that will support the nation's 62 HITECH-funded Regional Extension Centers created to assist physicians and small or rural hospitals with implementing EHRs and related technologies.

These four mobile roles cover on-site practice workflow and information management, clinician consultants acting as liaisons, implementation support and project managers. The other two roles are designed for permanent employees within practices and cover software support and training.

Because the four mobile roles are designed to help RECs get off the ground quicker, the focus now is on these roles, but that could change in six to 12 months, Morganti says. And it won't just be RECs hiring students trained to perform these roles; REC vendor partners may also hire them.

The Midwest Community College Health Information Technology Consortium is accepting students with backgrounds in health care or information technology. The students with health care experience are targeted for I.T. training and those experienced with I.T. are targeted for health care training. Classroom work-nearly half of which is performed online-is supplemented with case studies and lectures from experts in the health I.T. field, as well as internships at provider and I.T. organizations. "We have students with bachelor's and master's degrees, many from health care, but are finding dislocated and incumbent workers in the Midwest with I.T. backgrounds from downsized industries such as banking and manufacturing," Morganti notes.

Morganti understands concerns about whether a six-month course can produce a competent workforce, but contends the courses are designed to do just that. "We can do it in six months because our training is intended to be very personalized and targeted toward health care and information technology professionals."

The cost of community college training will vary among the consortia, which have substantial flexibility in how they "spend the federal grant money, Friedman of ONC says.

Many colleges are paying some or all tuition costs, while others are giving full or partial reimbursement upon completion of training.

University programs

Under HITECH, grants totaling $32 million over 39 months were awarded last April to nine universities to develop trained professionals for highly specialized health I.T. roles. Some of the universities formed a consortium with other schools, so a total of 15 universities are offering health I.T. training. Fourteen schools by December were offering courses with the last one starting up in January.

Most trainees will complete intensive courses in 12 months or less and receive a university-issued certificate of advanced training. The universities also will develop two-year master's degree programs that do not require a thesis or major research project. The ratio of one-year to two-year programs is about 12 to 1.

In the community college program, training focuses on specific supporting roles for EHR implementation and meaningful use. It is in the university programs where training workers in next-generation health I.T., including creation of new applications in a Web-based environment, is taking place, says Friedman of ONC.

The university programs will focus on six I.T. professional roles: clinician/public health leader, health information management and exchange specialist, health information privacy and security specialist, research and development scientist, programmer and software engineer, and health I.T. sub-specialist.

Each role requires students to have a prerequisite background that ensures they can accomplish what needs to be done in a year of training, Friedman says. Further, the university programs are designed to bring experienced people from other industries into the health care I.T. workforce.

Four-year institutions receiving the HITECH grants were Columbia University, University of Colorado Denver College of Nursing, Duke University, George Washington University, Indiana University, Johns Hopkins University, University of Minnesota, Oregon Health & Science University and Texas State University. The grants will support, up to fixed amounts, tuition and enrollment fees. All of the programs are expected to continue being offered after grant funding expires.

Five universities, four of which will offer the curricula, also received grants totaling $10 million to develop educational materials for the community college and university courses. They include University of Alabama at Birmingham, Columbia, Duke, Johns Hopkins and Oregon Health & Science.

Northern Virginia Community College in Annandale received a $6 million grant to develop a set of non-degree health I.T. competency examinations for the participating colleges and universities.

When your organization is a 20-hospital academic delivery system with a ton of information technology applications already installed and more coming, and you also are

one of the region's largest employers, a nationwide shortage of information technology talent isn't necessarily a concern.

But the worker shortage is affecting the University of Pittsburgh Medical Center in a different way. Rather than worrying about filling vacant position, the delivery system is on guard to prevent other health care entities from siphoning off its talent.

"We're not seeing much raiding yet, but with UPMC recognized as an I.T. leader it's something I spend a lot of time focusing on," says Beth Trimble, director of human resources for the corporate services business unit of UPMC.

To enable I.T. employees to continue to grow professionally, the medical center offers a tuition reimbursement program, sends staff out to training seminars and conferences, and also operates an in-house leadership development program. A summer intern program helps fill entry-level positions and enables the growth of talent from the ground up, Trimble says.

Housing Plunge Complicates Hiring

Health care information technology vendors are finding it's not just tough to hire the right rank-and-file information technology talent, but also to attract management-level candidates, says Jim Gibson, founder of Gibson Consultants, a Ridgefield, Conn.-based national search firm.

The recession and plunge in home values has brought a wrinkle to the task of hiring health I.T. management positions, "At the senior level, the impacting issue is lack of workforce mobility. Anyone owning a house can't sell or afford to sell."

Consequently, vendors that previously would have required on-site management-level employees now may say "I need you here a few days a week," and permit them to work from home the other days. So while implementation specialists often are on the road and living out of suitcases, so are some of their managers.

Another worker shortage dynamic on the vendor side is finding good sales people, Gibson says. Despite opportunities for new sales arising from the HITECH Act, some vendors are struggling. Ancillary vendors can't get the buyer's attention if their products are not directly related to meaningful use, he notes. And that's causing turnover of sales personnel, which exacerbates the sales problem.

Survey: I.T. Starting Salaries Rising

Average starting salaries in the information technology field, across all industries, is expected to increase an average of 3.4 percent in 2011, according to annual research from Robert Half Technology, a Menlo Park, Calif.-based I.T. employment placement agency with business across the nation.

In high-demand fields, starting salary jumps of 5 percent are common. There is widespread demand for programming, particularly .NET, Java, mySQL, PHP, Silverlight, Flex and portal technologies such as SharePoint. Businesses adopting social medial strategies are causing strong demand for skilled Web designers, according to the firm. Demand also is strong in health care to install and support electronic health records.

Other cross-industry skills in high demand include business analysis, project management, enterprise resource planning, security, infrastructure support and networkin.

"The Robert Half Technology Salary Guide 2011" is available at no cost at rht.com. Registration (submission of contact information) is required.

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